

PATENT
Genentech Docket No.: P1447R1

INTERLEUKIN-8 HOMOLOGOUS POLYPEPTIDES AND THERAPEUTIC USES THEREOF

This application is a continuing application (filed under 35 U.S.C. §120) which application claims priority to U.S. Provisional Application No.: 60/090696, filed on June 25, 1998; and to which U.S. Provisional Application claims priority under 35 U.S.C. §119; and also claims priority to International PCT Application Nos.: PCT/US99/12252, filed on June 2, 1999; PCT/US00/08439, filed on March 30, 2000; PCT/US00/23328, filed on August 24, 2000; and PCT/US01/06520, filed on February 28, 2001; to which International PCT Applications claim priority under 35 U.S.C. §120; and also claims priority to U.S. Patent Application Nos.: 09/380137, filed on August 25, 1999; 09/709238, filed on November 8, 2000; and 09/941992, filed on August 28, 2001; to which U.S. Patent Applications claim priority under 35 U.S.C. §120 the entire disclosures of which are hereby 10 incorporated by reference.

FIELD OF THE INVENTION

The present invention relates generally to the identification and isolation of novel DNA and to the 15 recombinant production of novel polypeptides having structural homology to the chemokine interleukin-8.

BACKGROUND OF THE INVENTION

Extracellular proteins play important roles in, among other things, the formation, differentiation and maintenance of multicellular organisms. The fate of many individual cells, *e.g.*, proliferation, migration, 20 differentiation, or interaction with other cells, is typically governed by information received from other cells and/or the immediate environment. This information is often transmitted by secreted polypeptides (for instance, mitogenic factors, survival factors, cytotoxic factors, differentiation factors, neuropeptides, and hormones) which are, in turn, received and interpreted by diverse cell receptors or membrane-bound proteins. These secreted polypeptides or signaling molecules normally pass through the cellular secretory pathway to reach their site of 25 action in the extracellular environment.

Secreted proteins have various industrial applications, including as pharmaceuticals, diagnostics, biosensors and bioreactors. Most protein drugs available at present, such as thrombolytic agents, interferons, interleukins, erythropoietins, colony stimulating factors, and various other cytokines, are secretory proteins. Their receptors, which are membrane proteins, also have potential as therapeutic or diagnostic agents.

30 Membrane-bound proteins and receptors can play important roles in, among other things, the formation, differentiation and maintenance of multicellular organisms. The fate of many individual cells, *e.g.*, proliferation, migration, differentiation, or interaction with other cells, is typically governed by information received from other cells and/or the immediate environment. This information is often transmitted by secreted polypeptides (for